

### **WHAT IS CLAIMED IS:**

1. A multi-stage impact force enhancing device of an electric nailer, comprising an AC power source, an AC input control circuit, a tripler rectifying filter circuit, a DC steady-state circuit, a timing switch circuit, a  
5 decoding counting circuit, an impulse oscillation circuit, multiple energy-storage circuits, multiple solid-state switch circuits, and an electromagnetic coil.

2. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 1, wherein the decoding counting circuit drives a  
10 charging energy-storage electrolytic capacitor of each stage to serially discharge a voltage to the electromagnetic coil, thereby producing a larger impact force with less capacitance.

3. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 1, wherein the tripler rectifying filter circuit can  
15 transform the voltage of the AC power source into three times DC voltage.

4. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 3, wherein the tripler rectifying filter circuit has a third time electrolytic capacitor to form a three times voltage, and to function as an energy-storage capacitor for discharging the voltage to the  
20 electromagnetic coil.

5. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 1, wherein the energy-storage circuits and the

solid-state switch circuits form a first capacitor energy-storage and solid-state switch circuit to discharge the voltage to the electromagnetic coil.

6. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 1, further comprising a second capacitor energy-storage and solid-state switch circuit including the energy-storage  
5 circuits and the solid-state switch circuits to discharge the voltage to the electromagnetic coil.

7. The multi-stage impact force enhancing device of an electric nailer in accordance with claim 1, further comprising a third capacitor energy-storage  
10 and solid-state switch circuit including the energy-storage circuits and the solid-state switch circuits to discharge the voltage to the electromagnetic coil.